REMARKS

Applicants respectfully request further examination and reconsideration in view of the above amendments and the comments set forth fully below. Claims 24-26 and 35-42 were pending. Within the Office Action, Claims 24-26 and 35-42 have been rejected. By the above amendment, Claims 24, 35 and 41 have been amended. Claims 24-26 and 35-42 are now pending.

Rejections Under 35 U.S.C. § 102

Within the Office Action, Claims 24-26 and 35-42 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,844,306 to Hill (hereinafter "Hill"). The applicants respectfully disagree. Hill does not teach a purging system within a synthesizer. Hill teaches a gas supply system for supplying gas or compressed air. Hill teaches that the gas is supplied from large capacity banks of storage containers having different pressure capacities. [Hill, Abstract] Hill teaches that the gas is withdrawn from the lower pressure storage bank first and only if necessary from a higher pressure bank. [Hill, Abstract] Hill teaches that the outlet of the pressure regulator 46 is connected through hose shut-off valves 49 and 53 and check valves 50 and 54 to fill hoses 51 and 55, respectively. [Hill, col. 3, lines 19-28] Hill also teaches that the fill hoses 51 and 55 may be detachably connected to tanks to be filled. [Hill, col. 3, lines 19-28]

Hill does not teach a purging system within a synthesizer. Within the Office Action, the Figure of Hill is the only support cited for the statement that the gas supply system of Hill may be used with a synthesizer. The applicants respectfully disagree. Hill never teaches that the gas supply system may be used within a synthesizer. Further, there is nothing illustrated in the Figure of Hill to support the assertion that the gas supply system of Hill may be used with a synthesizer.

Hill does not teach a system which includes a first and second bank of vials. Within the Office Action, the container banks 18 and 17 are cited as the first bank of vials and the second bank of vials, respectively. The applicants respectfully disagree. As Hill teaches, the banks of storage containers 17 and 18 include large capacity, highly pressurized, storage containers. [Hill, col. 1, lines 41-47] These storage containers are not vials within a synthesizer.

Hill does not teach a waste tube capable of engaging with a first drain and a second drain. The fill hoses 51 and 55 taught by Hill are not waste tubes. Hill teaches that the fill hose 51 may

be detachably connected to a tank to be filled. [Hill, col. 3, lines 19-22] Hill also teaches that the fill hose 55 may be detachably connected to a second tank to be filled. [Hill, col. 3, lines 24-27] As Hill teaches, these *fill hoses* 51 and 55 are used to *fill* tanks with gas from the storage portion 10 of the system. [Hill, col. 3, lines 15-28] These *fill hoses* are not *waste tubes* which engage with a first drain to purge material from a first bank of vials within a synthesizer and a second drain to purge material from a second bank of vials within a synthesizer.

In contrast to the teachings of Hill, the multi-well rotary synthesizer includes a controller, a plurality of precision fit vials circularly arranged in multiple banks on a cartridge, a drain corresponding to each bank of vials, a chamber bowl, a plurality of valves for delivering reagents to selective vials and a waste tube system for purging material from the vials. [Specification, p. 3, lines 8-11] The banks of vials can also be selectively purged, allowing the banks of vials to be used to synthesize different polymer chains. [Specification, p. 3, lines 8-11] The plurality of vials are held within the cartridge and divided among individual banks. [Specification, page 3, lines 15-16] Each individual bank of vials has a corresponding drain. [Specification, page 3, line 16] The reagent solution is purged from a bank of vials by rotating the cartridge until the corresponding drain is positioned above the waste tube system and coupling the waste tube system to the corresponding drain. As discussed above, Hill does not teach a purging system within a synthesizer. As also discussed above, Hill does not teach a system which includes a first and second bank of vials. Further, Hill does not teach a waste tube capable of engaging with a first drain and a second drain.

The independent Claim 24 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials and a second bank of vials wherein the first bank of vials has a first drain and the second bank of vials has a second drain. The purging system of Claim 24 comprises a pressurizing system for creating a pressure differential within a selective one of the first bank of vials and the second bank of vials and a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. As discussed above, Hill does not teach a purging system within a synthesizer. As also discussed above, Hill does not teach a system which includes a first and second bank of vials. Further, Hill does not teach a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. For at least these reasons, the independent Claim 24 is allowable over the teachings of Hill.

Claims 25 and 26 are both dependent on the independent Claim 24. As described above, the independent Claim 24 is allowable over the teachings of Hill. Accordingly, the Claims 25 and 26 are both also allowable as being dependent on an allowable base claim.

The independent Claim 35 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials and a second bank of vials wherein the first bank of vials has a first drain and the second bank of vials has a second drain. The purging system of Claim 35 comprises means for generating a pressure differential within a selective one of the first bank of vials and the second bank of vials and means for purging for engaging a selective one of the first drain for purging material from the first bank of vials and the second drain to purge material from the second bank of vials. As discussed above, Hill does not teach a purging system within a synthesizer. As also discussed above, Hill does not teach a system which includes a first and second bank of vials. Further, Hill does not teach a means for purging for engaging a selective one of the first drain for purging material from the first bank of vials and the second drain to purge material from the second bank of vials. For at least these reasons, the independent Claim 35 is allowable over the teachings of Hill.

Claims 36-40 are all dependent on the independent Claim 35. As described above, the independent Claim 35 is allowable over the teachings of Hill. Accordingly, the Claims 36-40 are all also allowable as being dependent on an allowable base claim.

The independent Claim 41 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials having a first drain and a second bank of vials having a second drain. The purging system of Claim 41 comprises a pressurizing system to generate a pressure differential within a selective one of the first bank of vials and the second bank of vials, a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials and a drain seal coupled to the first waste tube for generating a flexible seal between the first waste tube and the selective one of the first drain and the second drain. As discussed above, Hill does not teach a purging system within a synthesizer. As also discussed above, Hill does not teach a system which includes a first and second bank of vials. Further, Hill does not teach a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. Hill also does not teach a drain seal coupled to the first waste tube for generating a flexible seal between the first waste tube and the selective one of the first drain and the second drain. For at least these reasons, the independent Claim 41 is allowable over the teachings of Hill.

Claim 42 is dependent on the independent Claim 41. As described above, the independent Claim 41 is allowable over the teachings of Hill. Accordingly, the Claim 42 is also allowable as being dependent on an allowable base claim.

Within the Office Action, Claims 24, 35 and 40 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,424,038 to Benz et al. (hereinafter "Benz et al"). The applicants respectfully disagree. Benz et al. do not teach a purging system within a synthesizer. Benz et al teach a specimen collector. The arrangement of Benz et al. has a plurality of receiving vessels each formed as a closed cell provided with a first conduit open below and a second conduit open above into an interior of the cell. [Benz et al., Abstract] Benz et al. teach that the arrangement includes two pairs of connecting conduits and a mechanical switching device that has three positions for each group of the cells to close the first and second conduits, connect the first and second conduits with the first pair of connecting conduits and connect the first and second conduits with the second pair of connecting conduits. [Benz et al., Abstract]

Benz et al. do not teach a purging system within a synthesizer. Within the Office Action, no support is provided for the assertion that Benz et al. teach a purging system for use with a synthesizer. Benz et al. never teach nor illustrate that the specimen collector may be used within a synthesizer.

Benz et al. do not teach a system which includes a first and second bank of vials. Within the Office Action, the cell blocks 15 and 14 are cited as the first bank of vials and the second bank of vials, respectively. The applicants respectfully disagree. As Benz et al. teach the cells within the cell blocks are formed as receiving vessels with a first conduit opening below and a second conduit opening above. [Benz et al., col. 1, lines 33-47] The cells of Benz et al. are not vials within a synthesizer.

Benz et al. do not teach a waste tube capable of engaging with a first drain and a second drain. The connecting conduits of Benz et al. are not waste tubes and do not engage a drain to purge material from a bank of vials.

In contrast to the teachings of Benz et al., the multi-well rotary synthesizer includes a controller, a plurality of precision fit vials circularly arranged in multiple banks on a cartridge, a drain corresponding to each bank of vials, a chamber bowl, a plurality of valves for delivering reagents to selective vials and a waste tube system for purging material from the vials. [Specification, p. 3, lines 8-11] The banks of vials can also be selectively purged, allowing the banks of vials to be used to synthesize different polymer chains. [Specification, p. 3, lines 8-11] The plurality of vials are held within the cartridge and divided among individual banks.

[Specification, page 3, lines 15-16] Each individual bank of vials has a corresponding drain. [Specification, page 3, line 16] The reagent solution is purged from a bank of vials by rotating the cartridge until the corresponding drain is positioned above the waste tube system and coupling the waste tube system to the corresponding drain. As discussed above, Benz et al. do not teach a purging system within a synthesizer. As also discussed above, Benz et al. do not teach a system which includes a first and second bank of vials. Further, Benz et al. do not teach a waste tube capable of engaging with a first drain and a second drain.

The independent Claim 24 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials and a second bank of vials wherein the first bank of vials has a first drain and the second bank of vials has a second drain. The purging system of Claim 24 comprises a pressurizing system for creating a pressure differential within a selective one of the first bank of vials and the second bank of vials and a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. As discussed above, Benz et al. do not teach a purging system within a synthesizer. As also discussed above, Benz et al. do not teach a system which includes a first and second bank of vials. Further, Benz et al. do not teach a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. For at least these reasons, the independent Claim 24 is allowable over the teachings of Benz et al.

The independent Claim 35 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials and a second bank of vials wherein the first bank of vials has a first drain and the second bank of vials has a second drain. The purging system of Claim 35 comprises means for generating a pressure differential within a selective one of the first bank of vials and the second bank of vials and means for purging for engaging a selective one of the first drain for purging material from the first bank of vials and the second drain to purge material from the second bank of vials. As discussed above, Benz et al. do not teach a purging system within a synthesizer. As also discussed above, Benz et al. do not teach a system which includes a first and second bank of vials. Further, Benz et al. do not teach a means for purging for engaging a selective one of the first drain for purging material from the first bank of vials and the second drain to purge material from the second bank of vials. For at least these reasons, the independent Claim 35 is allowable over the teachings of Benz et al.

Claim 40 is dependent on the independent Claim 35. As described above, the independent Claim 35 is allowable over the teachings of Benz et al. Accordingly, the Claim 40 is also allowable as being dependent on an allowable base claim.

Within the Office Action, Claims 24-26 and 35-42 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,090,850 to Chen et al. (hereinafter "Chen et al.") The applicants respectfully disagree. Chen et al. does not teach a purging system within a synthesizer. Chen et al. teach an apparatus for use in radioimmunoassays. Chen et al. teach that the apparatus includes a receptacle tray with multiple wells, each of said wells having at its bottom an orifice of such size and shape to retain liquid under given pressure conditions and permit the evacuation of the liquid at reduced pressure. [Chen et al., col. 4, lines 19-28] Chen et al. teach that the vacuum is applied to all of the wells together. Chen et al. do not teach selectively purging material from the wells.

Chen et al. do not teach a purging system within a synthesizer. Within the Office Action, the Figures 1-5 and the text at column 4, lines 29-47 of Chen et al. are cited as the support for the assertion that Chen et al. disclose a purging system for use with a synthesizer. The applicants respectfully disagree with this assertion. Chen et al. do not teach, either within this cited section or within the remainder of the patent, a purging system within a synthesizer.

Chen et al. do not teach a system which includes a first and second bank of vials. The tray within the system of Chen et al. does not divide the wells into multiple banks. The vacuum is applied to all of the wells together.

Chen et al. do not teach a waste tube capable of engaging with a first drain and a second drain. As described above, Chen et al. do not divide the wells into multiple banks. Accordingly, Chen et al. do not have a first drain to purge material from a first bank of vials and a second drain to purge material from a second bank of vials.

In contrast to the teachings of Chen et al., the multi-well rotary synthesizer includes a controller, a plurality of precision fit vials circularly arranged in multiple banks on a cartridge, a drain corresponding to each bank of vials, a chamber bowl, a plurality of valves for delivering reagents to selective vials and a waste tube system for purging material from the vials. [Specification, p. 3, lines 8-11] The banks of vials can also be selectively purged, allowing the banks of vials to be used to synthesize different polymer chains. [Specification, p. 3, lines 8-11] The plurality of vials are held within the cartridge and divided among individual banks. [Specification, page 3, lines 15-16] Each individual bank of vials has a corresponding drain. [Specification, page 3, line 16] The reagent solution is purged from a bank of vials by rotating

the cartridge until the corresponding drain is positioned above the waste tube system and coupling the waste tube system to the corresponding drain. As discussed above, Chen et al. do not teach a purging system within a synthesizer. As also discussed above, Chen et al. do not teach a system which includes a first and second bank of vials. Further, Chen et al. do not teach a waste tube capable of engaging with a first drain and a second drain.

The independent Claim 24 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials and a second bank of vials wherein the first bank of vials has a first drain and the second bank of vials has a second drain. The purging system of Claim 24 comprises a pressurizing system for creating a pressure differential within a selective one of the first bank of vials and the second bank of vials and a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. As discussed above, Chen et al. do not teach a purging system within a synthesizer. As also discussed above, Chen et al. do not teach a system which includes a first and second bank of vials. Further, Chen et al. do not teach a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. For at least these reasons, the independent Claim 24 is allowable over the teachings of Chen et al.

Claims 25 and 26 are both dependent on the independent Claim 24. As described above, the independent Claim 24 is allowable over the teachings of Chen et al. Accordingly, the Claims 25 and 26 are both also allowable as being dependent on an allowable base claim.

The independent Claim 35 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials and a second bank of vials wherein the first bank of vials has a first drain and the second bank of vials has a second drain. The purging system of Claim 35 comprises means for generating a pressure differential within a selective one of the first bank of vials and the second bank of vials and means for purging for engaging a selective one of the first drain for purging material from the first bank of vials and the second drain to purge material from the second bank of vials. As discussed above, Chen et al. do not teach a purging system within a synthesizer. As also discussed above, Chen et al. do not teach a system which includes a first and second bank of vials. Further, Chen et al. do not teach a means for purging for engaging a selective one of the first drain for purging material from the first bank of vials and the second drain to purge material from the second bank of vials. For at least these reasons, the independent Claim 35 is allowable over the teachings of Chen et al.

Claims 36-40 are all dependent on the independent Claim 35. As described above, the independent Claim 35 is allowable over the teachings of Chen et al. Accordingly, the Claims 36-40 are all also allowable as being dependent on an allowable base claim.

The independent Claim 41 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials having a first drain and a second bank of vials having a second drain. The purging system of Claim 41 comprises a pressurizing system to generate a pressure differential within a selective one of the first bank of vials and the second bank of vials, a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials and a drain seal coupled to the first waste tube for generating a flexible seal between the first waste tube and the selective one of the first drain and the second drain. As discussed above, Chen et al. do not teach a purging system within a synthesizer. As also discussed above, Chen et al. do not teach a system which includes a first and second bank of vials. Further, Chen et al. do not teach a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. Chen et al. also do not teach a drain seal coupled to the first waste tube for generating a flexible seal between the first waste tube and the selective one of the first drain and the second drain. For at least these reasons, the independent Claim 41 is allowable over the teachings of Chen et al.

Claim 42 is dependent on the independent Claim 41. As described above, the independent Claim 41 is allowable over the teachings of Chen et al. Accordingly, the Claim 42 is also allowable as being dependent on an allowable base claim.

Within the Office Action, Claims 24, 25, 35-38, 40 and 41 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,874,691 to Chandler (hereinafter "Chandler"). The applicants respectfully disagree. Chandler does not teach a purging system within a synthesizer. Chandler teaches devices for immunoassays which employ a reusable syringe or vacuum manifold to withdraw samples through a membrane. Chandler teaches that a membrane is supported in an assembly which interfaces with a syringe or other device for creating a pressure gradient. [Chandler, col. 2, lines 53-64, Figures 2 and 3] Chandler teaches that reagents or samples are held within the chamber until a vacuum is applied. [Chandler, col. 4, line 55 - col. 5, line 12] Once the vacuum is applied, Chandler teaches that all of the materials within the chamber are drawn through the membrane. [Chandler, col. 4, line 55 - col. 5, line 12]

Chandler does not teach a purging system within a synthesizer.

Chandler does not teach a system which includes a first and second bank of vials. The vacuum manifold of Chandler does not divide the chambers into multiple banks. Chandler teaches that the vacuum is applied to the chambers simultaneously. [Chandler, col. 5, lines 2-12]

Chandler does not teach a waste tube capable of engaging with a first drain and a second drain. As described above, Chandler does not divide the chambers into multiple banks. Accordingly, Chandler does not have a first drain to purge material from a first bank of vials and a second drain to purge material from a second bank of vials.

In contrast to the teachings of Chandler, the multi-well rotary synthesizer includes a controller, a plurality of precision fit vials circularly arranged in multiple banks on a cartridge, a drain corresponding to each bank of vials, a chamber bowl, a plurality of valves for delivering reagents to selective vials and a waste tube system for purging material from the vials. [Specification, p. 3, lines 8-11] The banks of vials can also be selectively purged, allowing the banks of vials to be used to synthesize different polymer chains. [Specification, p. 3, lines 8-11] The plurality of vials are held within the cartridge and divided among individual banks. [Specification, page 3, lines 15-16] Each individual bank of vials has a corresponding drain. [Specification, page 3, line 16] The reagent solution is purged from a bank of vials by rotating the cartridge until the corresponding drain is positioned above the waste tube system and coupling the waste tube system to the corresponding drain. As discussed above, Chandler does not teach a purging system within a synthesizer. As also discussed above, Chandler does not teach a system which includes a first and second bank of vials. Further, Chandler does not teach a waste tube capable of engaging with a first drain and a second drain.

The independent Claim 24 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials and a second bank of vials wherein the first bank of vials has a first drain and the second bank of vials has a second drain. The purging system of Claim 24 comprises a pressurizing system for creating a pressure differential within a selective one of the first bank of vials and the second bank of vials and a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. As discussed above, Chandler does not teach a purging system within a synthesizer. As also discussed above, Chandler does not teach a system which includes a first and second bank of vials. Further, Chandler does not teach a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. For at least these reasons, the independent Claim 24 is allowable over the teachings of Chandler.

Claim 25 is dependent on the independent Claim 24. As described above, the independent Claim 24 is allowable over the teachings of Chandler. Accordingly, the Claim 25 is also allowable as being dependent on an allowable base claim.

The independent Claim 35 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials and a second bank of vials wherein the first bank of vials has a first drain and the second bank of vials has a second drain. The purging system of Claim 35 comprises means for generating a pressure differential within a selective one of the first bank of vials and the second bank of vials and means for purging for engaging a selective one of the first drain for purging material from the first bank of vials and the second drain to purge material from the second bank of vials. As discussed above, Chandler does not teach a purging system within a synthesizer. As also discussed above, Chandler does not teach a system which includes a first and second bank of vials. Further, Chandler does not teach a means for purging for engaging a selective one of the first drain for purging material from the first bank of vials and the second drain to purge material from the second bank of vials. For at least these reasons, the independent Claim 35 is allowable over the teachings of Chandler.

Claims 36-38 and 40 are all dependent on the independent Claim 35. As described above, the independent Claim 35 is allowable over the teachings of Chandler. Accordingly, the Claims 36-38 and 40 are all also allowable as being dependent on an allowable base claim.

The independent Claim 41 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials having a first drain and a second bank of vials having a second drain. The purging system of Claim 41 comprises a pressurizing system to generate a pressure differential within a selective one of the first bank of vials and the second bank of vials, a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials and a drain seal coupled to the first waste tube for generating a flexible seal between the first waste tube and the selective one of the first drain and the second drain. As discussed above, Chandler does not teach a purging system within a synthesizer. As also discussed above, Chandler does not teach a system which includes a first and second bank of vials. Further, Chandler does not teach a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. Chandler also does not teach a drain seal coupled to the first waste tube for

generating a flexible seal between the first waste tube and the selective one of the first drain and the second drain. For at least these reasons, the independent Claim 41 is allowable over the teachings of Chandler.

Rejections Under 35 U.S.C. § 103

Within the Office Action, Claims 31-41 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,472,672 to Brennan (hereinafter "Brennan") in view of PCT Publication No. 98/10857 to Zuckermann et al. (hereinafter "Zuckermann et al."). The applicants respectfully disagree. Claims 31-34 have previously been canceled.

Brennan teaches an apparatus and method for polymer synthesis using arrays. The apparatus taught by Brennan includes a head assembly having an array of nozzles with each nozzle coupled to a reservoir of liquid reagent. The apparatus taught by Brennan also includes a base assembly having an array of reaction wells arranged in linear rows and columns. Brennan teaches that the reagent solution is expelled from all of the reaction wells when the pressure differential between the reaction wells and an exit orifice exceeds a predetermined amount. Brennan does not teach a waste tube capable of engaging with a first drain and a second drain. Brennan does not teach a waste tube for engaging a selective one of a first drain and a second drain.

Within the Response to Arguments section of the Office Action, it is stated that Brennan discloses a waste tube that may be coupled to different drains of different things. It is further stated that the selectivity of the engaging is determined by the operator. This is not taught by Brennan and no support is given for this assertion within the Office Action. Further, no support for such an assertion can be found within Brennan.

Brennan does not teach a system which includes a first and second bank of vials. The base assembly of Brennan does not divide the reaction wells into multiple banks.

Zuckermann teaches an actuation means for use in solid phase chemical synthesis involving arrays of modular reaction vessels. The apparatus taught by Zuckermann includes a plurality of reaction vessels arranged in a substantially linear array. [Zuckermann, Abstract] The reaction vessels of Zuckermann include modular valving means capable of being simultaneously actuated to drain or close each of the reaction vessels in the array. [Zuckermann, Abstract] Zuckermann does not teach a waste tube capable of engaging with a first drain and a second drain. As described above, Brennan also does not teach a waste tube capable of engaging with a first drain and a second drain. Accordingly, neither Brennan, Zuckermann nor their combination

teach a waste tube capable of engaging with a first drain and a second drain. Zuckermann also does not teach a waste tube for engaging a selective one of a first drain and a second drain. As described above, Brennan also does not teach a waste tube for engaging a selective one of a first drain and a second drain. Accordingly, neither Brennan, Zuckermann nor their combination teach a waste tube for engaging a selective one of a first drain and a second drain.

In contrast to the teachings of Brennan and Zuckermann, the multi-well rotary synthesizer includes a controller, a plurality of precision fit vials circularly arranged in multiple banks on a cartridge, a drain corresponding to each bank of vials, a chamber bowl, a plurality of valves for delivering reagents to selective vials and a waste tube system for purging material from the vials. [Specification, p. 3, lines 8-11] The banks of vials can also be selectively purged, allowing the banks of vials to be used to synthesize different polymer chains. [Specification, p. 3, lines 8-11] The plurality of vials are held within the cartridge and divided among individual banks. [Specification, page 3, lines 15-16] Each individual bank of vials has a corresponding drain. [Specification, page 3, line 16] The reagent solution is purged from a bank of vials by rotating the cartridge until the corresponding drain is positioned above the waste tube system and coupling the waste tube system to the corresponding drain. As discussed above, neither Brennan, Zuckermann nor their combination teach a waste tube capable of engaging with a first drain and a second drain. As also discussed above, neither Brennan, Zuckermann nor their combination teach a waste tube for engaging a selective one of a first drain and a second drain.

The independent Claim 35 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials and a second bank of vials wherein the first bank of vials has a first drain and the second bank of vials has a second drain. The purging system of Claim 35 comprises means for generating a pressure differential within a selective one of the first bank of vials and the second bank of vials and means for purging for engaging a selective one of the first drain for purging material from the first bank of vials and the second drain to purge material from the second bank of vials. As discussed above, neither Brennan, Zuckermann nor their combination teach means for purging for engaging a selective one of the first drain for purging material from the first bank of vials and the second drain to purge material from the second bank of vials. For at least these reasons, the independent Claim 35 is allowable over the teachings of Brennan, Zuckermann and their combination.

Claims 36-40 are all dependent on the independent Claim 35. As described above, the independent Claim 35 is allowable over the teachings of Brennan, Zuckermann and their combination. Accordingly, the Claims 36-40 are all also allowable as being dependent on an allowable base claim.

The independent Claim 41 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials having a first drain and a second bank of vials having a second drain. The purging system of Claim 41 comprises a pressurizing system to generate a pressure differential within a selective one of the first bank of vials and the second bank of vials, a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials and a drain seal coupled to the first waste tube for generating a flexible seal between the first waste tube and the selective one of the first drain and the second drain. As discussed above, neither Brennan, Zuckermann nor their combination teach a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. For at least these reasons, the independent Claim 41 is allowable over the teachings of Brennan, Zuckermann and their combination.

Within the Office Action, Claims 25, 36, 37, 41 and 42 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hill or Brennan in view of Zuckermann or Chen et al. in view of U.S. Patent No. 2,684,255 to Abele et al. (hereinafter "Abele et al.") The applicants respectfully disagree.

Claim 25 is dependent on the independent Claim 24. As described above, the independent Claim 24 is allowable over the teachings of Hill, Benz et al., Chen et al. and Chandler. Accordingly, the Claim 25 is also allowable as being dependent on an allowable base claim.

Claims 36 and 37 are both dependent on the independent Claim 35. As described above, the independent Claim 35 is allowable over the teachings of Brennan, Zuckermann and their combination, Hill, Benz et al., Chen et al. and Chandler. Accordingly, the Claims 36 and 37 are both also allowable as being dependent on an allowable base claim.

As discussed above, neither Brennan, Zuckermann nor their combination nor Hill nor Chen et al. teach a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. Abele et al. appears to only be cited for its teaching of a seal. Abele et al. does not teach a drain seal coupled to a waste tube for generating a flexible seal between the waste tube

and a drain. Further, there is no hint, teaching or suggestion to combine Abele et al. with either Brennan, Zuckermann, Hill or Chen et al., as neither Brennan, Zuckermann, Hill nor Chen et al. has a waste tube that would need a drain seal. Such motivation for these combinations is absent from the Office Action.

The independent Claim 41 is directed to a purging system within a synthesizer, the synthesizer further comprising a first bank of vials having a first drain and a second bank of vials having a second drain. The purging system of Claim 41 comprises a pressurizing system to generate a pressure differential within a selective one of the first bank of vials and the second bank of vials, a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials and a drain seal coupled to the first waste tube for generating a flexible seal between the first waste tube and the selective one of the first drain and the second drain. As discussed above, neither Hill, Brennan, Zuckermann, Chen et al., Abele et al. nor their combination teach a first waste tube capable of engaging a selective one of the first drain to purge material from the first bank of vials and the second drain to purge material from the second bank of vials. For at least these reasons, the independent Claim 41 is allowable over the teachings of Hill, Brennan, Zuckermann, Chen et al., Abele et al. and their combination.

Claim 42 is dependent on the independent Claim 41. As described above, the independent Claim 41 is allowable over the teachings of Hill, Brennan, Zuckermann, Chen et al., Abele et al. and their combination. Accordingly, the Claim 42 is also allowable as being dependent on an allowable base claim.

Applicants respectfully submit that the claims, as amended, are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
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